

U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
73544 Hwy 64  
Meeker, CO 81641

## ENVIRONMENTAL ASSESSMENT

**NUMBER:** CO-110-2005-104-EA

**CASEFILE/PROJECT NUMBER** (optional): COC 63936

**PROJECT NAME:** Gilsonite Ridge Federal 26-4 and 26-5

**LEGAL DESCRIPTION:** Sixth Principal Meridian,  
T.1S., R.104W.,  
Sec. 26, NENW, SWNW.

**APPLICANT:** KGH Operating Company

**ISSUES AND CONCERNS** (optional): Possible raptor issues, Big Game winter range.

**DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

***Background/Introduction:*** An onsite visit was completed 03/02/05. This area is a pinyon/juniper woodland type surrounding both proposed well pads. It was noted that the understory was sparse. At the time of the onsite, it was decided the proposed access route was a good location. Photos of the locations and surrounding area were taken at this time and are available for review in the project file.

**Proposed Action:** KGH proposes to drill two wells in the Gilsonite Ridge area.

The well pad construction for Federal 26-4 will be approximately 320 ft x 240 ft, which is about 1.8 acres. The proposed access to this well pad will be an existing road (following Questar pipeline access) to the pad vicinity and from there, a new access road (0.25 miles) will be built with an 18 ft travel width. A gate will be constructed at the entrance to the new road on the north side of the Questar pipeline after the well has been completed.

The well pad construction for Federal 26-5 will be approximately 320 ft x 240 ft, or 1.8 acres. The proposed access to this well pad will be an existing road on top of Gilsonite Hills for 1.4 miles, then east following Questar pipeline access for 1.6 miles to the pad vicinity. From there, a new access road (0.15 miles) will be built with an 18ft travel width. The 1.6 miles of road will need to be upgraded. A gate will be constructed at the entrance to the new road on the north side of the Questar pipeline after the well has been completed.

These locations will be constructed large enough to accommodate the drilling rig and associated equipment for drilling these wells. The reserve pits will be fenced on three sides prior to drilling activities and closed off on the fourth side after drilling is finished. All construction activities will be confined to the minimum area necessary. The exterior boundaries of the construction area will be clearly marked prior to any surface disturbing activities or vegetation removal. All brush will be cleared and stockpiled on the North edge of the locations beyond the location edges and will be kept separate from the topsoil stockpiles. The brush will be used for mulch after the disturbed area has been reseeded.

A biodegradable mulch may be required if soil erosion or vegetation establishment is determined to be a problem by the authorized officer on the access or location reclamation. All disturbed areas will be seeded with the approved seed mixture. Seed tags will be submitted to the field manager within 30 days of seeding. The seedbeds will be prepared by contour cultivation 4-6" deep and drilling seed ½ to 1" deep following the contour. In areas that cannot be drilled, seed will be broadcast at 1.5 times the application rate and then dragged for cover. Seeding will be completed after September 15, 2005 and prior to October 31, 2005 if feasible, but not later than the fall of 2006.

If the wells are a producer, KGH will upgrade and maintain access roads as necessary to prevent soil erosion and accommodate year round traffic. Areas unnecessary to production operations will be reshaped cultivated on the contour and seeded as described above. The topsoil will be saved for use during final reclamation unless the site can be re-contoured to blend with the natural topography as required for the final abandonment. Perennial vegetation will be established. All permanent facilities will be painted pinyon green to blend with the natural environment.

If the wells are abandoned/dry holes, KGH will restore the access road and location to blend with the natural topography. During reclamation of the site, fill material will be pushed into cuts and up over the back slope. No depressions will be left that could trap water or form ponds. Top soil will be distributed evenly over the location and seeded according to the approved seed mixture.

KGH will notify the White River Field Office Manager at least 24 hours prior to commencing construction or maintenance of the access road and/or well pads.

**No Action Alternative:** The APDs would be denied. No access roads or well pads would be constructed. There would be no additional environmental impacts.

**ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:** None

**NEED FOR THE ACTION:** To respond to the request by applicant to exercise lease rights and develop hydrocarbon reserves.

**PLAN CONFORMANCE REVIEW:** The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Pages 2-5 thru 2-6.

Decision Language: “Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values.”

**AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES /  
MITIGATION MEASURES:**

**STANDARDS FOR PUBLIC LAND HEALTH:** In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

**CRITICAL ELEMENTS**

**AIR QUALITY**

*Affected Environment:* Gilsonite Ridge is not located near any special designation air sheds or non-attainment areas. The proposed action will have little affect on air quality in the area with exception to dry periods when human disturbance increased fugitive dust levels.

*Environmental Consequences of the Proposed Action:* Removal of ground cover will leave soils exposed to eolian processes until mitigation is complete. Elevated levels of fugitive dust would result with strong winds and increased human activity during dry periods. However, airborne particulate matter should not exceed Colorado air quality standards on an hourly or daily basis.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* Cover stockpiled topsoil to prevent wind erosion. Dust abatement (e.g. spreading water on road ways) will be utilized to reduce fugitive dust levels during construction and periods of high use.

**CULTURAL RESOURCES**

*Affected Environment:* Gilsonite Ridge Federal 26-4 and 26-5 well pads and access roads: The proposed well pad and access road have been inventoried at the Class III (100% pedestrian) level (Conner 2005 Compliance Dated 4/20/2005, LaPoint et al 1981 Compliance Dated 8/1981) with 6 sites and one isolated find located in the inventoried area. Two of the reported sites, 5RB 776 and 5RB 784 appear to be avoided by the proposed action. The remaining four sites will be impacted by the proposed project.

*Environmental Consequences of the Proposed Action:* Gilsonite Ridge Federal 26-4 and 26-5 well pads and access roads: The proposed action will impact four known sites (5RB 768, 769, 770 and 2855) and one isolated find (5RB 4969). Only one site, 5RB 2855, has the potential to be NRHP eligible. The remaining sites are not eligible and the major features should not be further impacted by the proposed action.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts to any known cultural resources under the No Action Alternative.

*Mitigation:* For both well pads and access roads: Gilsonite Ridge Federal 26-4 and Gilsonite Ridge Federal 26-5 well pads and access roads: 1. Sites 5RB 776 and 784 must be completely avoided by all construction and maintenance activity.

2. All construction work through 5RB 2855 must be monitored. Further, if the hearth identified by the archaeological consultant cannot be avoided by proposed then the hearth must be scientifically excavated.

3. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

4. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

**INVASIVE, NON-NATIVE SPECIES/RECLAMATION:** (This includes vegetation information related to Public Land Health Standard 3.)

*Affected Environment:* The proposed project is within the pinyon/juniper woodland vegetation association. The juniper woodland soils in this area are shallow and shale derived. Past reclamation efforts have included non-native species, which have performed well in soil stabilization.

The two noxious weeds found in this area are halogeton and cheatgrass. Both of these species are found throughout the area. Halogeton has the ability to rapidly colonize disturbed areas, but is easily controlled by successful revegetation. Cheatgrass is found throughout the area in all of the plant communities. This specie can hinder reclamation because of its highly competitive nature. Non-native species have been shown to out-compete cheatgrass. Noxious weeds, such as knapweeds, transported on site by construction equipment and support vehicles would also be of concern.

*Impact of Proposed Action:* Using the proposed non-native seed mix would adequately stabilize soils. These species have not been shown to move off site or to interbreed with adjacent plant species.

With prompt control of any noxious weeds that occur on the project area there would not be any adverse impacts to the adjacent plant communities. Prompt reclamation would prevent cheatgrass and halogeton from establishing.

*Impact of No Action Alternative:* There would be no impacts.

*Mitigation:* Use Seed Mix #2 for reclamation. In accordance with Condition of Approval #179 from Appendix B of the White River ROD/RMP, application of herbicides must be under field supervision of an EPA-certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.

## **MIGRATORY BIRDS**

*Affected Environment:* The project area consists primarily of submature juniper-dominated woodlands occasionally interspersed with small Wyoming big sagebrush parks. Much of the access road has been sited on an east-facing slope with an open woodland character. All involved woodlands support a sparse (<10%) subcanopy of mountain mahogany and ephedra with poor herbaceous development (i.e., platey shales). There are a number of migratory birds

that fulfill nesting functions in these types from April through July, including several species identified as having higher conservation interest by the Rocky Mountain Bird Observatory, Partners in Flight program (i.e., green-tailed towhee, gray flycatcher, juniper titmouse, black-throated gray warbler). These and more common and generalized species associated with these habitats (e.g., house finch, chipping sparrow, vesper sparrow) are widely represented at appropriate densities in extensive suitable habitats throughout the Resource Area.

*Environmental Consequences of the Proposed Action:* Construction and drilling/completion activities associated with these pads are scheduled to commence in June 2005 and be completed by July 2005. Based on this schedule, it is likely that development activity would take place synchronous with the migratory bird breeding season. Habitats affected by the two locations do not support high nest densities, particularly those birds of higher conservation interest, largely because of very limited sagebrush involvement, low availability of larger diameter and older trees prone to cavity development, and the woodland's predominantly submature structure with poorly developed understories. Assuming proposed gas development activity was to take place during the core nesting season, it is likely that the breeding activities of no more than 6 pair of higher interest species would be directly or indirectly influenced. Due to the low potential for adversely affecting migratory bird nesting activity, the application of timing limitations is not considered warranted.

It has recently been brought to BLM's attention that in certain situations migratory waterfowl (i.e., teal and gadwall) have contacted oil-based drilling fluids stored in reserve pits during or after completion operations and are suffering mortality in violation of the Migratory Bird Treaty Act. The extent and nature of the problem is not well defined, but is being actively investigated by the federal agencies and the companies. Until the vectors of mortality are better understood, management measures must be conservative and relegated to preventing bird contact with oil-based drilling fluids that may pose a problem.

*Environmental Consequences of the No Action Alternative:* There would be no action authorized that would have potential to disrupt the breeding activities of migratory birds. Alternate actions would have similar or more substantive consequences as those discussed under the proposed action.

*Mitigation:* Pits remaining after the drilling period which store or are expected to store production fluids will be wired or netted to prevent or discourage entry by larger birds attracted to sources of water, including raptors and waterfowl. At a minimum, wire will be stretched over the entire length and breadth of the pit at intervals not exceeding three feet, and made permanently conspicuous either by choice of material or installation of flagging material evenly distributed across the pit at a minimum rate of one flag per 18 square feet.

**THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES** (includes a finding on Standard 4)

*Affected Environment:* There are no animals listed under the Endangered Species Act or included on BLM's sensitive species list that inhabit or derive important benefit from the area potentially influenced by the proposed action.

*Environmental Consequences of the Proposed Action:* The proposed action would have no conceivable affect on animals listed, proposed, candidate, or petitioned for listing under the Endangered Species Act. Similarly, there are no animals considered sensitive by BLM that would be potentially influenced by this action.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

*Finding on the Public Land Health Standard for Threatened & Endangered species:* The proposed and no-action alternative would have no effective influence on special status species or associated habitat and would, therefore, have no potential to influence the status of applicable land health standards.

## **WASTES, HAZARDOUS OR SOLID**

*Affected Environment:* There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

*Environmental Consequences of the Proposed Action:* No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

*Environmental Consequences of the No Action Alternative:* No hazardous or other solid wastes would be generated under the no-action alternative.

*Mitigation:* The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

## **WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)**

*Affected Environment: Surface Water:* The proposed action is located in Hells Hole and Weaver Canyon catchment areas both of which are tributaries to the White River. Approximately 1.6 miles of road will be located in the Hells Hole basin while the drill sites and remaining access roads are situated in the Weaver Canyon watershed. A review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the

303(d) list and the Unified Watershed Assessment was done to see if any water quality concerns have been identified. The State has classified stream segment 22 of the White River Basin as "Use Protected" and further designated as beneficial for the following uses: Warm Aquatic Life 2, Recreation 1b, and Agriculture. The antidegradation review requirements in the Antidegradation Rule are not applicable to waters designated use-protected. For those waters, only the protection specified in each reach will apply. For this reach, minimum standards for four parameters have been listed. These parameters are: dissolved oxygen = 5.0 mg/l, pH = 6.5 - 9.0, Fecal Coliform = 325/100 ml, and 205/100 ml E. coli.

Ground Water: The proposed action is located in an area of local ground water recharge. Deeper aquifers will likely be encountered in the drilling process.

*Environmental Consequences of the Proposed Action:* Improvement of the existing two-track road along with construction of the new access road and proposed well pad will result in temporary exposure of soils to erosional processes. Removal of ground cover would likely increase erosive potential due to runoff and raindrop impact during storm events. Increased traffic on the upgraded road may lead to rut development causing water to be channelized down the roadway. As a result, erosive head cutting will develop at locations water exits the roadway.

Local ground water may be contaminated if a spill results or pit contents are allowed to infiltrate soils. Adverse impacts on deeper ground water are also possible as a result of cross aquifer contamination due to drilling.

*Environmental Consequences of the No Action Alternative: None*

*Mitigation:* To mitigate surface erosion due to removal of ground cover at the well pad, it is recommended stockpiled soils be covered and silt fences be used on down gradient sides. It is also recommended that upon reclamation flow deflectors and sediment traps (woody debris) be redistributed over the area along with seed. Also, in road construction/upgrading, proper drainage structures (drain dips, culverts) must be installed to allow for proper drainage and minimize further surface erosion.

To minimize consequences to ground water resources all pits should be lined. In addition, all wastes associated with construction and drilling will be properly treated and disposed of. Finally, aquifers encountered during the drilling process must be properly sealed off to reduce potential for cross aquifer contamination.

*Finding on the Public Land Health Standard for water quality:* Hells Hole Gulch and Weaver Canyon both currently meet water quality standards set by the state of Colorado for stream segment 22 of the White River Basin. Following proper mitigation techniques, water quality should not be significantly compromised.

## **WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)**

*Affected Environment:* There are no wetlands or riparian communities potentially influenced by the proposed action. The nearest perennial water source is the White River which is located approximately 6 miles to the northwest of the proposed project area.

*Environmental Consequences of the Proposed Action:* Riparian and wetland communities would not be directly or indirectly affected by well construction.

*Environmental Consequences of the No Action Alternative:* There would be no immediate action authorized that would have potential to affect wetland or riparian communities.

*Mitigation:* None

*Finding on the Public Land Health Standard for riparian systems:* Because there are no riparian or wetland resources potentially influenced by the proposed or the no-action alternative, a land health standard finding is not relevant. As such, there would be no change in the land health status of downstream riparian and wetland communities.

## **CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:**

No ACEC's, flood plains, prime and unique farmlands, Wilderness, or Wild and Scenic Rivers, threatened, endangered or sensitive plants exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

## **NON-CRITICAL ELEMENTS**

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

### **SOILS (includes a finding on Standard 1)**

*Affected Environment:* The following data is a product of an order III soil survey conducted by the Natural Resource Conservation Service (NRCS). The accompanying table highlights important soil characteristics. A complete summary of this information can be found at the White River Field Office.

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
73	Rentsac channery loam	5-50%	Pinyon-Juniper woodlands	<2	Rapid	Moderate to very high	10-20

75	Rentsac-Piceance complex	2-30%	PJ woodland/ Rolling Loam	<2	Medium	Moderate to high	10-20
78	Rock Outcrop	50-100%	None		Very high	Slight	0
91	Torriorthents-Rock Outcrop complex	15-90%	Stoney Foothills		Rapid	Very high	10-20

Soils assigned controlled surface use stipulations regarding “fragile soils” (CSU-1) exist down gradient of the access road to be upgraded. Approximately 0.21 miles of the new proposed access road (including federal pad 26-4) and the last 0.22 miles of the first 0.75 miles of upgraded road run through soils listed as “fragile” (CSU-1). However, after reviewing a topographic map it was found that these segments are located on a slopes appearing to be less than 35% thus controlled surface use stipulations would not apply.

*73-Rentsac channery loam* (5 to 50 percent slopes) is a shallow, well drained soil located on ridges, foothills, and side slopes. It formed in residuum derived dominantly from calcareous sandstone. Areas are elongated and are 200 to 5,000 acres. The native vegetation is mainly pinyon, juniper, brush, and grasses. Typically, the surface layer is grayish brown channery loam about 5 inches thick. The next layer is very channery loam about 4 inches thick. The underlying material is extremely flaggy light loam 7 inches thick. Hard sandstone is at a depth of 16 inches. Depth to sandstone ranges from 10 to 20 inches. Permeability of this Rentsac soil is moderately rapid. Available water capacity is very low. Effective rooting depth is 10 to 20 inches. Runoff is rapid, and the hazard of water erosion is moderate to very high.

*75-Rentsac-Piceance complex* (2 to 30 percent slopes) can be found in uplands, broad ridges, and foothills. Areas are oval and are 20 to 500 acres. The native vegetation is mainly sparse stands of pinyon and juniper and open areas of sagebrush. This unit is 60 percent Rentsac channery loam that has slopes of 8 to 30 percent and 30 percent Piceance fine sandy loam that has slopes of 2 to 15 percent. The Piceance soil is generally on north-facing side slopes and is in more concave areas than the Rentsac soil. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used.

The Rentsac soil is shallow and well drained. It formed in residuum derived dominantly from sandstone. Typically, the surface layer is grayish brown channery loam about 5 inches thick. The next layer is brown, strongly calcareous very channery loam about 4 inches thick. The underlying material is very pale brown extremely flaggy light loam 7 inches thick. Hard sandstone is at a depth of 16 inches. Depth to sandstone ranges from 10 to 20 inches. In some areas the surface layer is flaggy loam. Permeability of the Rentsac soil is moderately rapid. Available water capacity is very low. Effective rooting depth is 10 to 20 inches. Runoff is medium, and the hazard of water erosion is moderate to high.

The Piceance soil is moderately deep and well drained. It formed in eolian material and colluvium derived dominantly from sandstone. Typically, the surface layer is brown fine sandy loam 4 inches thick. The upper 5 inches of the subsoil is brown loam, and the lower 13 inches is light yellowish brown loam. The substratum is very pale brown channery light loam 8 inches thick. Hard sandstone is at a depth of 30 inches. Depth to sandstone or hard shale ranges from 20 to 40 inches. In some areas the surface layer is loam or sandy loam. Permeability of the

Piceance soil is moderate. Available water capacity is low. Effective rooting depth is 20 to 40 inches. Runoff is slow to medium, and the hazard of water erosion is slight to moderate.

*78-Rock outcrop*, this map unit is found on mountains, in canyons, and on ridges, hills, and upland breaks. It consists of barren exposures of sandstone, hard shale, siltstone, or limestone. Slope is about 50 to 100 percent. Areas are irregular, rectangular, or elongated in shape and are 15 to 200 acres in size. This unit is 90 percent or more exposed bedrock with some soil material in the crevices and at the base of the slopes. Accumulations of boulder and stones are also common at the base of the slopes. Rock outcrop most commonly occurs as nearly vertical ledges and cliffs that are 3 to 50 feet high and 5 to 1,500 feet long.

*91-Torriorthents-Rock outcrop complex* (15 to 90 percent slopes) exists in extremely rough and eroded areas on mountains, hills, ridges, and canyonsides. Slopes mainly face south. The native vegetation is mainly sparse shrubs and grasses with some pinyon and juniper trees. This unit is 50 percent Torriorthents that have slopes of 15 to 65 percent and 30 percent Rock outcrop that has slopes of 35 to 90 percent.

Torriorthents are very shallow to moderately deep and are well drained and somewhat excessively drained. They formed in residuum and colluvium derived dominantly from sandstone, shale, limestone, and siltstone. Torriorthents are highly variable. No single profile of Torriorthents is typical, but one commonly observed in the survey area has a surface layer of pale brown channery loam about 3 inches thick. The underlying material is very pale brown channery loam, very channery loam, or fine sandy loam about 13 inches thick. Shale or sandstone is at a depth of 16 inches. Torriorthents are calcareous throughout. In some areas the surface layer is stony or flaggy. Permeability of the Torriorthents is moderate. Available water capacity is very low. Effective rooting depth is 10 to 20 inches. Runoff is very rapid, and the hazard of water erosion is very high. Rock outcrop consists of barren escarpments, ridge caps, and points of sandstone, shale, limestone, or siltstone. The escarpments are 3 to 50 feet thick and 25 to 2,500 feet long.

*Environmental Consequences of the Proposed Action:* Construction of the proposed well pad and access roads will result in temporary exposure of soils to erosional processes. Removal of ground cover may dramatically increase erosive potential down gradient the proposed actions due to runoff and raindrop impact during storm events. Increased traffic on access roads may lead to rut development causing water to be channelized down the roadway. As a result, erosive head cutting will develop at locations water exits the roadway. Spills or leaks involving environmentally unfriendly substances could impair soils ability to support healthy plant communities.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* Surface disturbing activities must not take place on slopes exceeding 35 %. Special care must be taken to account for the fragile soils to the south of the upgraded road. Limited amount of cut should be associated with construction to ensure access ways are located on slopes less than 35 %. Failure to comply with the above will result in additional requirements as stated in appendix A (A-8) of the White River Resource Management Plan.

Appendix A (A-8) states that all surface disturbing activities (on fragile soils with slopes > 35 %) will be permitted only after an engineered construction/reclamation plan has been submitted by the operator and approved by the Area Manager.

“Gold Book” surface operating standards for constructing roads and access ways should be strictly adhered to. Use dust abatement practices as stated in the air quality section to reduce soil erosion via eolian processes.

Areas cleared for work space in constructing/upgrading access roads and well pads must be re-seeded and sufficient ground cover must be re-applied to minimize erosion. In addition, stockpiled soils will be covered and silt fences shall be situated on down gradient sides.

*Finding on the Public Land Health Standard for upland soils:* An increase in soil compaction combined with reductions in ground cover will decrease infiltration and permeability rates. Increased surface runoff directed towards “fragile” soils situated down gradient of the upgraded road will represent erosional problems. However, with appropriate engineering and proper mitigation techniques, soil health should not be greatly compromised.

## **VEGETATION** (includes a finding on Standard 3)

*Affected Environment:* The project area is primarily a sparse low growing Utah juniper type. The access road and one well pad are within a sagebrush flat with predominate species including basin big sagebrush, ephedra, shadscale, winterfat, Indian ricegrass, needle-and-thread grass and a variety of native forbs. Non-native cheatgrass is found throughout the area.

*Environmental Consequences of the Proposed Action:* Following reclamation these vegetation sites have relatively good success at establishment of perennial vegetation cover. The juniper woodland would establish cover suitable for soil retention within 3-5 years and initial establishment of junipers in 15-20 years. Development of a late seral community would take 150-200 years. The sagebrush site would develop into a mature community in 20-30 years.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* None

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): The above described plant community meets the standards for plant health. This status will not change with the proposed action.

## **WILDLIFE, AQUATIC** (includes a finding on Standard 3)

*Affected Environment:* The proposed locations are at least six miles from perennial systems capable of supporting aquatic communities (see Wetlands and Riparian Zones section above).

*Environmental Consequences of the Proposed Action:* Separated by at least 6 miles of ephemeral channel, there is no reasonable likelihood that aquatic habitats associated with downstream perennial systems would not be influenced by proposed well and road construction.

*Environmental Consequences of the No Action Alternative:* There would be no immediate action authorized that would have potential to affect wetland or riparian communities. Although alternate locations could be presented under this alternative, they would probably be as unlikely to involve aquatic resources as the proposed action.

*Mitigation:* None

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Terrestrial): Because there are no aquatic habitats or animals potentially influenced by the proposed or no-action alternatives, a land health standard finding is not applicable. The proposed and no action alternatives would have no measurable influence on aquatic habitats associated with downstream systems (see Wetlands and Riparian Zones section above).

## **WILDLIFE, TERRESTRIAL** (includes a finding on Standard 3)

*Affected Environment:* The proposed wells are encompassed by general winter ranges of deer and elk. These ranges sustain big game use from November through early May. Although browse use in the project area's woodlands indicate relatively low density or short duration winter deer use, a nearby woodland burn (0.5 mile east) sustains substantial winter elk use. Additionally, the 26-5 location subtends a small sagebrush bench that receives heavy winter use by deer. The access road shared by both wells skirts and lies below the eastern edge of this park. Current road densities are moderate (1.5-2.5 miles per square mile) in the project vicinity and generally meet the road density objectives established in the White River ROD/RMP (i.e., road densities of 3 miles/square mile on big game ranges, White River ROD/RMP, page 2-29).

Non-game wildlife using this area are typical and widely distributed in extensive like habitats across the Resource Area and northwest Colorado; there are no narrowly endemic or highly specialized species known to inhabit those lands potentially influenced by this action.

All pad locations were inspected by BLM biologists for evidence of raptor nesting activity on 2 March 2005. The two pads and shared access road are largely encompassed by juniper-dominated woodlands that, because of open canopy density and their stunted and submature character, provide limited utility as nesting habitat for woodland raptors. No raptor nests were located in areas more directly affected by the proposed construction activities. A narrow well developed stringer of woodland in an adjacent drainage bottom supports a mature pinyon pine component better suited for raptor nest site selection. A dominant pinyon in this stand held a functional sharp-shinned hawk nest about 650 feet lateral and 80 feet below the nearest point of the access road.

*Environmental Consequences of the Proposed Action:* Site disturbance during well and road construction and drilling/completion operations would occur during the summer months when big game are absent from the area. Big game habitat disuse and elevated energy demands attending road proliferation and increasing off-road vehicle use received prominent attention in the White River ROD/RMP. Access development attributable to these wells would represent a long-term intrusion onto previously unroaded woodland benches and sagebrush foraging sites. As a means of reducing incremental elevation of road-density related impacts to local deer and elk herds and maintaining road density objectives established in the White River ROD/RMP (i.e., road densities of 3 miles/square mile on big game ranges, White River ROD/RMP, page 2-29), it is recommended that general public access to the 26-5 and 26-4 locations be restricted by means of a lockable gate placed at a point as close as possible to the proposed access junction with the existing road. The selected point would be subject to the approval of the authorized officer with the objective of effectively deterring unauthorized bypass (e.g., may require fence wings). This gate should be emplaced by the time initial well completion activities are complete and should remain locked at all times (except for workover or additional completion activities).

Longer term occupation of these lands and the reduction in the herbaceous and woody forage base for big game (about 6 acres) would be discountable at the landscape level. The selected 26-5 location effectively avoids a sagebrush forage source of limited supply and the proposed access road, being situated on a sideslope, is predisposed to complete and effective rehabilitation (i.e., once recontoured, would not offer a residual terrace for subsequent vehicle use). Additionally, once these features are fully reclaimed, both pads are of a size and configuration that would simulate or expand the character of fire-caused sagebrush parks as a big game forage source. Similarly, the loss of forage and cover for non-game animals would be negligible.

The sharp-shinned hawk nest is believed to be sufficiently removed, both vertically and laterally, and screened with intervening woodland foliage such that development activities would have no conceivable affect on a nest effort if it were to be occupied this breeding season. This site will be monitored by BLM biologists to determine its occupancy status prior to the initiation of project work and, if occupied, document the birds' response to activity.

*Environmental Consequences of the No Action Alternative:* No immediate action would be authorized that would involve the adverse modification of terrestrial wildlife habitats. Alternate pad locations may be increasingly likely to be situated more distant from established roads, thereby involving more extensive access needs and more extensive direct and indirect involvement of functional big game, raptor, and non-game habitat.

*Mitigation:* It is recommended that general public access to the 26-5 and 26-4 locations be restricted by means of a lockable gate placed at a point as close as possible to the proposed access junction with the existing road. The selected point would be subject to the approval of the authorized officer with the objective of effectively deterring unauthorized bypass (e.g., may require fence wings). This gate should be emplaced by the time initial well completion activities are complete and should remain locked at all times (except for workover or additional completion activities).

The sharp-shinned hawk nest site in the general vicinity of project work will be monitored by a BLM biologist to determine its occupancy status prior to the initiation of project work and, if occupied, document the birds' response to activity.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Aquatic): The project area presently meets the public land health standards for terrestrial animal communities. As conditioned, the proposed action would have negligible long term influence on the utility or function of big game, raptor, or non-game habitats surrounding these wells. In an overall context, lands affected by the no-action or proposed action would continue to meet the land health standard for terrestrial animals.

**OTHER NON-CRITICAL ELEMENTS:** For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation			X
Cadastral Survey	X		
Fire Management			X
Forest Management			X
Geology and Minerals			X
Hydrology/Water Rights	X		
Law Enforcement		X	
Noise		X	
Paleontology			X
Rangeland Management		X	
Realty Authorizations			X
Recreation			X
Socio-Economics		X	
Visual Resources			X
Wild Horses	X		

## ACCESS AND TRANSPORTATION

*Affected Environment:* The proposed action occurs within an area designated as open seasonally. The area is closed to off road cross-country travel from October 1 through April 30 of each year. Rio Blanco County road 114 is the main access route to proposed actions.

*Environmental Consequences of the Proposed Action:* No impacts are anticipated.

*Environmental Consequences of the No Action Alternative:* None.

*Mitigation:* None.

## FIRE MANAGEMENT

*Affected Environment:* The 26-4&26-5 wells proposed involves approximately 2 miles of road construction/upgrading and about 3.6 acres of drill pad clearing for an approximate total of 7.96 acres of disturbance. Due to the existing tree cover of pinion and juniper, there will be a need for the operator to clear some of these trees. If not adequately treated, these trees will result in elevated hazardous fuels conditions and remain on-site for many years. These accumulations of dead material are very receptive to fire brands and spotting from wind driven fires and can greatly accelerate the rate of spread of the fire front. The road(s) associated with this project may be used by the general public for a variety of uses, including access for fire wood gathering, hunting and other dispersed recreational activities. Increased public use of an area will nearly always result in an increased potential for man-caused wildland fires.

The National Fire Plan calls for “firefighter and public safety” to be the highest priority for all fire management activities. In the pinion, juniper, and brush types common on the White River Resource Area, roads and other man-made openings are commonly used as fuel breaks or barriers to control the spread of both wildland and prescribed fires. By reducing the activity fuels created from this proposal, future fire management efforts in this area should be safer for those involved and more effective.

*Environmental Consequences of the Proposed Action:* There will be approximately 7.96 acres of road and well pad construction requiring the removal of pinion/juniper fuel type on the 26-4&26-5 well sites. If not treated the slash and woody debris will create an elevated hazardous dead fuel loading which could pose significant control problems in the event of a wildfire. Additionally there would be greater threat to public, ENCANA, and fire suppression personnel. The other locations proposed by this action are not located in or go through significant pinion/juniper and therefore will not create the dead fuel accumulation anticipated by #7367.

*Environmental Consequences of the No Action Alternative:* There would be no tree removal or disturbance which would cause significant dead fuel loading.

*Mitigation:* Several options may be considered for treatment of slash from this project. A hydro-ax or other mulching type machine could be used to remove the trees. The machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. It generally leaves small branches and pieces of wood from pencil size up to bowling ball size. The mulch is evenly scattered across the surface and the tires or tracks distribute the weight of the equipment. This would effectively breakdown the woody fuel and scatter the debris thereby eliminating any hazardous fuel load adjacent to the new road and well pad.

The other option would be to cut trees and have them removed for firewood, posts, or other products. The branches and tops should be lopped and scattered to a depth of 24 inches or less. If the products are left for collection by the general public, they should be piled along the road side outside of the locked gate locations to facilitate removal.

## FOREST MANAGEMENT

*Affected Environment:* The proposed project is partially within a sparse Utah juniper community. These woodlands produce marginal wood products in the form of firewood and fence posts for local consumption.

*Environmental Consequences of the Proposed Action:* there will be removal of Utah juniper from construction activities. The initial establishment of junipers would occur in 15-20 years, with development of a late seral community in 150-200 years, post reclamation. The trees are to be disposed of as described in mitigation, although the quantities are insufficient to require purchase by the applicant.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* From the White River RMP of 1997, Appendix B, 7; All trees removed in the process of construction shall be purchased from the Bureau of Land Management. The trees shall be cut with a maximum stump height of six inches and disposed of by one of the following methods:

- a. Trees must be cut before being dozed off the area of disturbance. Trees shall be cut into four-foot lengths, down to four inches in diameter and placed along the edge of the disturbance.
- b. Purchased trees may be removed from federal land for resale or private use. Limbs may be scattered off the area of disturbance but not dozed off.
- c. Chipped and scattered.

## GEOLOGY AND MINERALS

*Affected Environment:* The surface geologic formation of the proposed wells is Green River. KGH's targeted zone for 26-4 and 26-5 is in the Mancos. These wells are located on federal oil and gas leases COC-63936. During drilling potential water, coal, oil and gas zones will be encountered from surface to the targeted zone. There are patented gilsonite mining claims (MS 14148 and MS 14151) located approximately 200 feet north of 26-4.

*Environmental Consequences of the Proposed Action:* The cementing procedure of the proposed actions isolates the formations and will prevent the migration of gas, water, and oil between formations. Coal zones located in the Mesaverde will also be isolated during this procedure. Development of these wells will deplete the hydrocarbon resources in the targeted formation. Drilling of 26-4 should not adversely impact the gilsonite resources located southwest of the wells. Depending on bottom hole location there is a potential for drainage of the hydrocarbon resources on the patented lands located to the north of 26-4.

*Environmental Consequences of the No Action Alternative:* The operator should contact the mineral owner of the patented lands to notify them of the potential of drainage and make arrangements for any extraction that occurs on the patented lands.

## **PALEONTOLOGY**

*Affected Environment:* Gilsonite Ridge Federal 26-4 and 26-5 well pads and access roads: The proposed well pads and most of the access roads are located in an area mapped as the Parachute Creek Member of the Green River Formation (Tweto 1979) which the BLM has classified as a Condition I formation. A Condition I formation is known to produce scientifically important fossil resources.

A portion of the access road is located on what is mapped as the Douglas Creek member of the Green River Formation which the BLM has classified as a Condition II formation which means that it has an undetermined potential to produce scientifically important fossils. However, recent work in the formation has resulted in at least one incidence of fossil fish being recorded in the formation.

*Environmental Consequences of the Proposed Action:* For the proposed action: If it should become necessary to excavate into the underlying bedrock to upgrade the road, level the well pad or excavate the reserve/blooiie pit there is a potential to impact scientifically important fossil resources.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts to fossil resources under the No Action Alternative.

*Mitigation:* Gilsonite Ridge Federal 26-4 and 26-5 well pads and access roads: 1. All exposed outcrops of the formation must be inventoried by an approved paleontologist with a report detailing the results of the inventory and any recommended mitigation submitted and accepted by the BLM prior to initiation of construction.

2. If, at any time, it becomes necessary to excavate into the underlying bedrock formation to upgrade the access road, level the well pad or excavate the reserve/blooiie pit a paleontological monitor shall be required.

## **REALTY AUTHORIZATIONS**

*Affected Environment:* The access to the Federal Wells 24-4 and 24-5 will require a right-of-way for the off-lease portion of the road.

*Environmental Consequences of the Proposed Action:* The proposed action will require an amendment to KGH's existing right-of-way COC63986. The route crosses pipeline rights-of-

way, COC52705 (Colorado Interstate) and COC0123685 (Questar). There is a strip of private land in section 25 crossed by the road, and there are other entities with authorization of the roads.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* 1. The Colorado One Call procedure will have to be implemented before any surface disturbing activities take place (800-922-1987).

## **RECREATION**

*Affected Environment:* The proposed action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

The project area most resembles a Recreation Opportunity Spectrum (ROS) class of Semi-Primitive Motorized (SPM). SPM physical and social recreation setting is typically characterized by a natural appearing environment with few administrative controls, low interaction between users but evidence of other users may be present. SPM recreation experience is characterized by a high probability of isolation from the sights and sounds of humans that offers an environment that offers challenge and risk.

*Environmental Consequences of the Proposed Action:* The public will lose approximately 8 acres of dispersed recreation potential while wells are in operation. The public will most likely not recreate in the vicinity of these facilities and will be dispersed elsewhere. If action coincides with hunting seasons (September through November) it will most likely disrupt the experience sought by those recreationists.

With the introduction of new well pads and roads, an increase of traffic could be expected increasing the likelihood of human interactions, the sights and sounds associated with the human environment and a less naturally appearing environment.

*Environmental Consequences of the No Action Alternative:* No loss of dispersed recreation potential and no impact to hunting recreationists.

*Mitigation:* None.

## **VISUAL RESOURCES**

*Affected Environment:* The proposed action would be located in an area with a VRM II classification. The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the

basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

*Environmental Consequences of the Proposed Action:* The proposed actions would be located on a bench below the crest of a ridge. The closest route that would be traveled by a casual observer would be a dirt road along the top of Gilsonite Ridge which is approximately one mile away. The proposed actions would be located in stands of pinyon/juniper and would not dominate the view. By painting all production facilities Juniper Green to blend with and mimic the surrounding vegetation, the level of change to the characteristic landscape would be low, and the objectives of the VRM II classification would be retained.

*Environmental Consequences of the No Action Alternative:* There would be no additional impacts.

*Mitigation:* Paint all production facilities Juniper Green.

**CUMULATIVE IMPACTS SUMMARY:** This action is consistent with the scope of impacts addressed in the White River ROD/RMP. The cumulative impacts of these activities are addressed in the White River ROD/RMP for each resource value that would be affected by the proposed action.

#### **REFERENCES CITED:**

Conner, Carl E. and Barbara J. Davenport

- 2005 Class III Cultural Resource Inventory Report for Three Proposed Well Locations (Fed. #24-2, Fed. #26-4, and Fed. #26-5) and 2.0 Miles of New and To-be-upgraded Access Roads in the Gilsonite Hills Area of Rio Blanco County, Colorado, For KHG Operating Company. Grand River Institute, Grand Junction, Colorado.

LaPoint, Halcyon J., Howard M. Davidson, Steven D. Creasman and Karen C. Schubert

- 1981 Archaeological Investigations in the Canyon Pintado Historic District, Rio Blanco County, Colorado: Phase II – Inventory and Test Excavations. Reports of the Laboratory of Public Archaeology No. 53, August, 1981. Laboratory of Public Archaeology, Colorado State University, Fort Collins, Colorado.

Tweto, Ogden

- 1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

**PERSONS / AGENCIES CONSULTED:** None

**INTERDISCIPLINARY REVIEW:**

<b>Name</b>	<b>Title</b>	<b>Area of Responsibility</b>
Nate Dieterich	Hydrologist	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Michael Selle	Archaeologist	Cultural Resources Paleontological Resources
Robert Fowler	Forester	Invasive, Non-Native Species
Ed Hollowed	Wildlife Biologist	Migratory Birds
Ed Hollowed	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Bo Brown	Hazmat Collateral	Wastes, Hazardous or Solid
Nate Dieterich	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Ed Hollowed	Wildlife Biologist	Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness
Nate Dieterich	Hydrologist	Soils
Robert Fowler	Forester	Vegetation
Ed Hollowed	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Robert Fowler	Forester	Rangeland Management
Linda Jones	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Keith Whitaker	Natural Resource Specialist	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

# **Finding of No Significant Impact/Decision Record (FONSI/DR)**

## **CO-110-2005-104-EA**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE:** The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

**DECISION/RATIONALE:** It is my decision to approve the proposed action with the mitigation measures listed below.

### **MITIGATION MEASURES:**

1. Cover stockpiled topsoil to prevent wind erosion. Dust abatement (e.g. spreading water on road ways) will be utilized to reduce fugitive dust levels during construction and periods of high use.
2. For both well pads and access roads: Gilsonite Ridge Federal 26-4 and Gilsonite Ridge Federal 26-5 well pads and access roads: 1. Sites 5RB 776 and 784 must be completely avoided by all construction and maintenance activity.
3. All construction work through 5RB 2855 must be monitored. Further, if the hearth identified by the archaeological consultant cannot be avoided by proposed then the hearth must be scientifically excavated.
4. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places
  - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
  - a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are

correct and that mitigation is appropriate.

5. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

6. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

7. Use Seed Mix #2 for reclamation. In accordance with Condition of Approval #179 from Appendix B of the White River ROD/RMP, application of herbicides must be under field supervision of an EPA-certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.

8. The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

9. To mitigate surface erosion due to removal of ground cover at the well pad, it is recommended stockpiled soils be covered and silt fences be used on down gradient sides. It is also recommended that upon reclamation flow deflectors and sediment traps (woody debris) be redistributed over the area along with seed. Also, in road construction/upgrading, proper drainage structures (drain dips, culverts) must be installed to allow for proper drainage and minimize further surface erosion.

10. To minimize consequences to ground water resources all pits should be lined. In addition, all wastes associated with construction and drilling will be properly treated and disposed of. Finally, aquifers encountered during the drilling process must be properly sealed off to reduce potential for cross aquifer contamination.

11. Surface disturbing activities must not take place on slopes exceeding 35 %. Special care must be taken to account for the fragile soils to the south of the upgraded road. Limited amount of cut should be associated with construction to ensure access ways are located on slopes less than 35 %. Failure to comply with the above will result in additional requirements as stated in appendix A (A-8) of the White River Resource Management Plan. Appendix A (A-8) states that all surface disturbing activities (on fragile soils with slopes > 35 %) will be permitted only after an engineered construction/reclamation plan has been submitted by the operator and approved by the Area Manager.

12. "Gold Book" surface operating standards for constructing roads and access ways should be strictly adhered to. Use dust abatement practices as stated in the air quality section to reduce soil erosion via eolian processes.

13. Areas cleared for work space in constructing/upgrading access roads and well pads must be re-seeded and sufficient ground cover must be re-applied to minimize erosion. In addition, stockpiled soils will be covered and silt fences shall be situated on down gradient sides.

14. It is recommended that general public access to the 26-5 and 26-4 locations be restricted by means of a lockable gate placed at a point as close as possible to the proposed access junction with the existing road. The selected point would be subject to the approval of the authorized officer with the objective of effectively deterring unauthorized bypass (e.g., may require fence wings). This gate should be emplaced by the time initial well completion activities are complete and should remain locked at all times (except for workover or additional completion activities).

15. The sharp-shinned hawk nest site in the general vicinity of project work will be monitored by a BLM biologist to determine its occupancy status prior to the initiation of project work and, if occupied, document the birds' response to activity.

16. Several options may be considered for treatment of slash from this project. A hydro-ax or other mulching type machine could be used to remove the trees. The machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. It generally leaves small branches and pieces of wood from pencil size up to bowling ball size. The mulch is evenly scattered across the surface and the tires or tracks distribute the weight of the equipment. This would effectively breakdown the woody fuel and scatter the debris thereby eliminating any hazardous fuel load adjacent to the new road and well pad.

17. The other option would be to cut trees and have them removed for firewood, posts, or other products. The branches and tops should be lopped and scattered to a depth of 24 inches or less. If the products are left for collection by the general public, they should be piled along the road side outside of the locked gate locations to facilitate removal.

18. From the White River RMP of 1997, Appendix B, 7; All trees removed in the process of construction shall be purchased from the Bureau of Land Management. The trees shall be cut with a maximum stump height of six inches and disposed of by one of the following methods:

a. Trees must be cut before being dozed off the area of disturbance. Trees shall be cut into four-foot lengths, down to four inches in diameter and placed along the edge of the disturbance.

b. Purchased trees may be removed from federal land for resale or private use. Limbs may be scattered off the area of disturbance but not dozed off.

c. Chipped and scattered.

19. Gilsonite Ridge Federal 26-4 and 26-5 well pads and access roads: 1. All exposed outcrops of the formation must be inventoried by an approved paleontologist with a report detailing the results of the inventory and any recommended mitigation submitted and accepted by the BLM prior to initiation of construction.

20. If, at any time, it becomes necessary to excavate into the underlying bedrock formation to upgrade the access road, level the well pad or excavate the reserve/blooiie pit a paleontological monitor shall be required.

21. The Colorado One Call procedure will have to be implemented before any surface disturbing activities take place (800-922-1987).

22. Paint all production facilities Juniper Green.

**COMPLIANCE/MONITORING:** Compliance and monitoring activities will be performed by White River Field Office staff.

**NAME OF PREPARER:** Brett Smithers

**NAME OF ENVIRONMENTAL COORDINATOR:** Caroline Hollowed

**SIGNATURE OF AUTHORIZED OFFICIAL:**

  
Acting Field Manager

**DATE SIGNED:** 5/24/05

**ATTACHMENTS:** Location map of the proposed action.

Location of Proposed Action  
CO-110-2005-104-EA

